AMENDMENTS TO THE CLAIMS:

Claim 1. (Currently Amended) A method for processing dermal tissue for implantation into a subject, said method comprising the steps of:

a. removing the epidermal layer of said dermal tissue to produce de-epidermalized tissue;

b. incubating said de-epidermalized tissue in at least one processing solution to remove cells from said de-epidermalized tissue, thereby producing a decellularized tissue matrix;

c. treating said decellularized tissue matrix to cause a reduction in size and an increase in surface area; and

d. exposing said decellularized tissue matrix to an acylating agent for a time ranging from about 30 seconds to about 10 minutes, wherein the ~~ratio~~ amount of said acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.3% of wet tissue weight, thereby producing a dispersed tissue matrix.

Claim 2. (Canceled)

Claim 3. (Original) The method of claim 2, wherein said treating comprises cryomilling said decellularized tissue matrix.

Claim 4. (Original) The method of claim 1, further comprising contacting said de-epidermalized tissue with a viral inactivating agent, before, after, or during step (b).

Claim 5. (Original) The method of claim 1, wherein said tissue is mammalian.

Claim 6. (Original) The method of claim 4, wherein said tissue is human.

Claim 7. (Original) The method of claim 1, wherein said acylating agent is glutaric anhydride or succinic anhydride.

Claim 8. (Currently Amended) The method of claim 1, wherein said ~~ratio~~ amount of acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.2% of wet tissue weight.

Claim 9. (Original) The method of claim 1, wherein said decellularization solution comprises sodium hydroxide.

Claim 10. (Original) The method of claim 1, wherein said decellularization solution comprises phosphoric acid.

Claim 11. (Original) The method of claim 1, wherein said tissue is autogenic, ~~allogenic~~ allogeneic or ~~xenogenic~~ xenogeneic.

Claim 12. (Original) The method of claim 1, wherein said step of removing the epidermal layer comprises exposing said tissue to a hypertonic salt solution.

Claim 13. (Currently Amended) A method for dispersing decellularized animal connective tissue, said method comprising the steps of:

treating said decellularized animal connective tissue to cause a reduction in size and an increase in surface area; and

contacting said decellularized, treated, animal connective tissue with a solution comprising an acylating agent for a time ranging from about 30 seconds to about 10 minutes, wherein the ~~ratio~~ amount of said acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.3% of wet tissue weight.

Claim 14. (Canceled)

Claim 15. (Original) The method of claim 14, wherein said treating comprises cryomilling said decellularized tissue.

Claim 16. (Original) The method of claim 13, wherein said tissue is mammalian.

Claim 17. (Original) The method of claim 13, wherein said tissue is human.

Claim 18. (Original) The method of claim 13, wherein said tissue is connective tissue.

Claim 19. (Original) The method of claim 13, wherein said tissue is dermal tissue.

Claim 20. (Currently Amended) The method of claim 13, wherein said ~~ratio~~ amount of acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.2% of wet tissue weight.

Claim 21. (Currently Amended) A method for augmenting the condition of in situ tissue of a subject, said method comprising introducing an effective amount of a dispersed collagen matrix into said in situ tissue of said subject, said dispersed collagen matrix being prepared by treating a decellularized animal connective tissue matrix to cause a reduction in size and an increase in surface area and contacting said decellularized, treated animal connective tissue matrix with a solution comprising an acylating agent for a time ranging from about 30 seconds to about 10 minutes, wherein the ~~ratio~~ amount of said acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.3% of wet tissue weight.

Claim 22. (Original) The method of claim 19, wherein said subject is a human.

Claim 23. (Original) The method of claim 19, wherein said dispersed collagen matrix is derived from an allogeneic source.

Claim 24. (Original) The method of claim 1, wherein said acylating agent is glutaric anhydride or succinic anhydride.

Claim 25. (Currently Amended) The method of claim 1, wherein said ~~ratio~~ amount of acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.2% of wet tissue weight.

Claim 26. (Currently Amended) A composition comprising an injectable, dispersed collagen matrix prepared by treating a decellularized animal connective tissue matrix to cause a reduction in size and an increase in surface area and contacting said decellularized, treated animal connective tissue with a solution comprising an acylating agent for a time ranging from about 30 seconds to about 10 minutes, wherein the ~~ratio~~ amount of said acylating agent ~~to wet tissue weight~~ is about 0.1% to about 0.3% of wet tissue weight.

Claim 27. (Original) The composition of claim 26, wherein the dispersed collagen matrix is injectable through a 30 gauge needle.

Claim 28. (Previously Presented) The composition of claim 26, wherein the dispersed collagen matrix has a trypsin resistance such that greater than about 40% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 29. (Previously Presented) The composition of claim 26, wherein the dispersed collagen matrix has a trypsin resistance such that greater than about 50% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 30. (Previously Presented) The composition of claim 27, wherein the dispersed collagen matrix has a trypsin resistance such that greater than about 70% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 31. (Previously Presented) The composition of claim 27, wherein the dispersed collagen matrix has a trypsin resistance such that greater that about 90% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 32. (Canceled)

Claim 33. (Currently Amended) An injectable composition comprising decellularized, acylated, dispersed, dermal tissue matrix, said tissue being acylated with an acylating agent in an amount of about 0.1% to about 0.3% of wet tissue weight for a time ranging from about 30 seconds to about 10 minutes and having a trypsin resistance such that greater than about 40% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 34. (Previously Presented) The composition of claim 33, wherein the dermal tissue matrix has a trypsin resistance such that greater than about 50% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 35. (Previously Presented) The composition of claim 33, wherein the dermal tissue matrix has a trypsin resistance such that greater than about 70% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.

Claim 36. (Previously Presented) The composition of claim 33, wherein the dermal tissue matrix has a trypsin resistance such that greater than about 90% of the dispersed collagen matrix remains undigested when exposed to 2% trypsin at 37°C for 6-24 hours.